

## NOTES ON THE BIRDS OF PEARSON, DOROTHEE AND GREENLY ISLANDS, SOUTH AUSTRALIA

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### Summary

PARKER, S. A. & COX, J. B. (1978) Notes on the birds of Pearson, Dorothee and Greenly Islands, South Australia. *Trans. R. Soc. S. Aust.* **102**(7), 191-202, 30 November, 1978.

Ornithological results of an expedition to Pearson, Dorothee and Greenly Islands off the west coast of Eyre Peninsula in November 1976 include field observations, details of specimens collected, and, for a few species, remarks on taxonomy, distribution, and food. Previous records are summarized. New records are: White-faced Storm-Petrel (Pearson), Great Cormorant, White-faced Heron and Turnstone (Dorothee and Greenly), Spur-winged Plover and Barn Owl (Dorothee) and Fairy Tern and Little Grassbird (Greenly). On Big Veteran, a rock between Pearson and Dorothee from which no birds have previously been reported, we noted six species: Great Cormorant, Sooty Oystercatcher, Turnstone, Silver Gull, Pacific Gull and Rock Parrot. Also of special interest are breeding colonies of Short-tailed Shearwater on Dorothee and Greenly, breeding colonies of White-faced Storm-Petrel on Dorothee, a probable breeding colony of the Fairy Tern on Seal Rock off Greenly, and breeding of the Welcome Swallow on Dorothee.

### Introduction

In November 1976 a biological survey of Pearson I. and Dorothee I. (Investigator Group) and Greenly I. was undertaken by A. C. Robinson, T. J. Fatchen, A. Spiers and J. B. Cox (S.A. National Parks and Wildlife Service) and W. Zeidler and S. A. Parker (S.A. Museum). Here we present the ornithological results, including some sightings made in Coffin Bay on the opposite mainland, and on passage between Coffin Bay and the islands.

Previous observations (summarized here) are available from Pearson for 1914, 1920, 1960, 1969, 1973 and 1974, from Dorothee for 1969, and from Greenly for 1947. Cleland (1923) gave details of birds noted on Pearson in January 1923, and Paton (1971) of birds on Pearson and Dorothee in January 1969. Both authors referred to observations made on Pearson by E. R. Waite in September 1914 and F. Wood Jones in November 1920. In addition, Paton included observations made by I. M. Thomas and S. J. Edmonds on Pearson in January 1960. Hornsby (1978) pre-

sented observations made on Pearson in February 1973 and February 1974. The previous records from Greenly are those of Finlayson (1948) for November 1947 and Mitchell & Behrndt (1949) for December 1947.

### List of species

*Eudyptula minor* (Forster), Little Penguin

Pearson I. Noted on all previous visits, on all sections, burrows being found up to more than 150 m a.s.l. (Paton 1971, Hornsby 1978). We found many burrows (Fig. 1) in the friable soil in crevices among boulders, and in steep slopes, usually under low shrubs, e.g. *Rhagodia crassifolia*, *Olearia ramulosa*. These contained eggs, chicks at various stages, and moulting adults.

Dorothee I. Previously recorded by Paton (1971). We found fewer than on Pearson I., and only on the northern half (Fig. 2), mainly in crevices among rocks under dense low shrubs: one bird was incubating an egg.

Greenly I. Reported by Finlayson (1948) and Mitchell & Behrndt (1949) on the slopes of the south section up to ca 123 m. The latter

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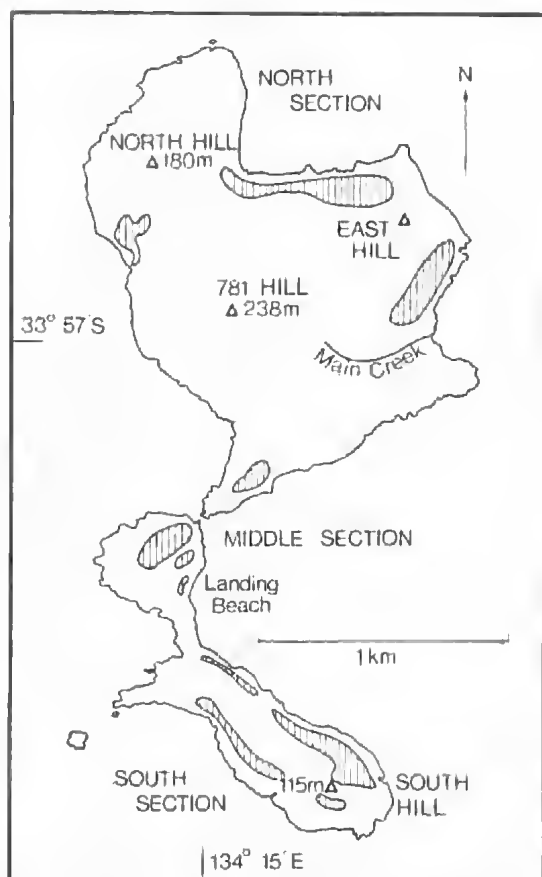


Fig. 1. Pearson Island (key as for fig. 2).

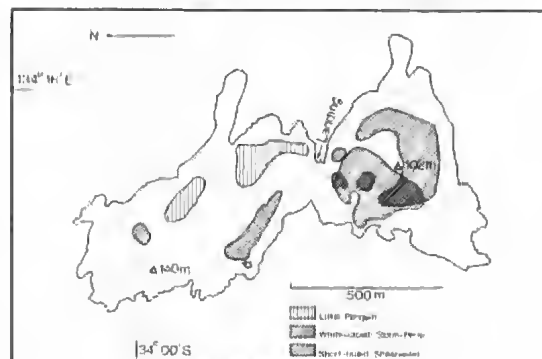


Fig. 2. Dorothee Island.

authors noted that in December 1947 breeding appeared to be over. We found the species halfway along the sloping north face of the south section (Fig. 3), in burrows in soil-filled rock crevices usually overhung by tussocks of *Poa poaeiformis*. All birds in the burrows were in heavy moult.

The species was also noted breeding on islands in Coffin Bay, 1.xii.1976: one dead

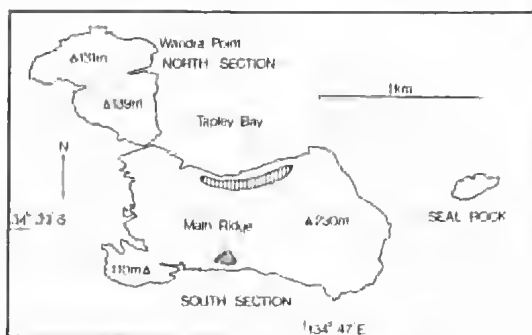


Fig. 3. Greenly Island (key as for fig. 2).

chick on the main island of The Brothers; two adults, one on eggs, on Garden I., with at least twelve burrows in all, in soil beneath a 3m limestone overhang.

***Diomedea melanophrys* Temminck. Black-browed Albatross**

Greenly I. One adult flying west, close in-shore, 29.xi.1976.

***Diomedea chlororhynchos* Gmelin. Yellow-nosed Albatross**

Pearson I.: two swimming round fishing boats in bay east of middle section, ii.1974, and others between Pearson I. and the mainland (Hornsby 1978). Greenly I.: one flying west, inshore, 29.xi.1976; single birds 4 km and 10 km north of Greenly I. 1.xii.1976. Near mainland: single birds 15 km south-southwest and 3 km southwest of Point Sir Isaac, Coffin Bay Peninsula. 1.xii.1976.

***Diomedea cauta* Gould. Shy Albatross**

One following boat continuously between Dorothee I. and Greenly I., 27.xi.1976; two inshore at Greenly I. 29-30.xi.1976; one 3 km off Point Sir Isaac. 1.xii.1976 (all immatures).

***Puffinus carneipes* Gould. Fleishy-footed Shearwater**

First seen (one bird) 2 km northwest of Point Sir Isaac, thence continuously (singly or in small groups) to 40 km from Pearson I., 22.xi.1976. Common from Dorothee I. to Greenly I., 27.xi.1976, in parties of up to 40, often mingling with flocks of Short-tailed Shearwater *P. tenuirostris*. Many seen from Greenly I. to Point Sir Isaac, 1.xii.1976. At sea, *P. carneipes* was more frequently encountered than *P. tenuirostris*; individuals of the former were scattered over a wider area and tended not to form large flocks, whereas individuals of the latter were usually seen in very

large flocks. *P. tenuirostris* was less abundant than *P. carneipes* over inshore waters of the mainland, but about the islands the reverse was usually the case.

McKean (1963) presented evidence that some individuals from the colony on Lord Howe I. foraged off the coasts of New South Wales and southern Queensland during the breeding season. Such long-distance foraging raises the possibility that the large numbers seen in South Australian waters during the breeding season are from Western Australian colonies, rather than from as yet undiscovered colonies in South Australia (see also Serventy *et al.* 1971, Cox 1976).

***Puffinus tenuirostris* (Temminck). Short-tailed Shearwater**

Pearson I. We noted five single birds within 10 km of the island on 22.xi.1976, and from then till 25.xi.1976 saw large numbers offshore each day in the late afternoon or evening. Serventy *et al.* (1971) listed Pearson I. as a breeding station, but although we searched the island by day and by night, we found no signs of a breeding colony.

Dorothee I. No previous records. We discovered a breeding colony of ca 800 pairs on the southern half of the island (Fig. 2), in an area of granitic shale with pockets of softer soil. The burrows tended to be in the soil, and many had their entrances overhung by the succulent *Disphyma clavellatum*. Each burrow examined contained a bird sitting on an egg. This colony overlapped a colony of the White-faced Storm-petrel, whose burrows tended, however, to be among *Atriplex paludosa* in the shaly ground.

Greenly I. Finlayson (1948) found mummified remains beneath what appeared to be the feeding tree of a White-bellied Sea-Eagle on the ridge of the south section. Mitchell & Behndt (1949) observed several birds flying about the boat as it approached Tapley Bay, and on the eastern end of the south section found a series of burrows that had apparently not been used for several seasons. We located a breeding colony on the steep southern slope of the south section (Fig. 3); it occupied the only patch of sand and soft travertine noted by us on the island. Most of the ca 200 burrows had their entrances curtained by shrubs of *Enchylaena tomentosa*, and most of those examined contained birds sitting on eggs.

Many individuals were seen inshore at Greenly I., mainly in morning and late after-

noon, 28-30.xi.1976. The species was common between Greenly I. and 20 km northeast on 1.xii.1976, becoming progressively scarcer towards the mainland. On 27.xi.1976 we observed large flocks of up to 150 individuals continuously between Dorothee I. and Greenly I., well away from land.

*Specimens:* B30463, Greenly I., 30.xi.1976, adult male, testes slightly enlarged (regressing); skull fully pneumatized; colours (2 hrs after death): legs pale lilac grey on inner faces, blackish outer, outer toe blackish, two inner toes pale lilac grey, webs cream with greyish and blackish streaks (heavier on undersurface); iris very dark brown; upper mandible: unguis black, rest blackish grey; lower mandible: ramicorn light grey, rest dark grey; eyerim blackish; stomach contents: beaks of small cephalopods. Bird taken 1030 hrs while incubating egg (B30487, dead fresh) in large bare sandy burrow about 1 m long, entrance curtained by bush of *Enchylaena tomentosa*; large brood-patch on abdomen.

B30464, Dorothee I., 26.xi.1976, adult female, oocytes slightly enlarged (? regressing); skull pneumatization not recorded; colours (5 mins after death): legs lilac grey on inner faces, blackish grey on outer, outer toe blackish grey, two inner toes lilac grey, webs greyish cream above, cream with blackish streaks below; iris very dark brown; upper mandible: latericorn brownish grey, rest blackish; lower mandible: ramicorn medium grey, unguis blackish, rest blackish distally, lightening to grey at base; mouth: greyish white tinged with pink, tongue creamy pink; eyerim black; stomach contents: black beaks of small cephalopods. Bird taken late afternoon incubating egg (B30486, dead fresh), in large bare burrow about 1 m long, roof 75 mm thick, under shrubs of *Disphyma clavellatum*.

***Pelagodroma marina* (Latham). White-faced Storm-Petrel**

Pearson I. No previous records. After dark on 24 and 25.xi.1976 we noted one or two flying above our camp on the middle section; one of these was collected. We also found a few feathers on the northern slope of South Hill on the south section. We failed to find any burrows, however, despite spotlighting and daytime searches; possibly here, and on Greenly I., the species is discouraged from breeding by the presence of the Southern Bush-rat *Rattus fuscipes*.

Dorothee I. Paton (1971) found the wings of at least ten of these petrels in front of small burrows. We located three breeding colonies (Fig. 2), mainly among *Atriplex paludosa*, *Threlkeldia diffusa* and *Rhagodia crassifolia* on high shaly slopes, the burrow-entrances diffi-

cult to find among the dense shrubs. The most northerly colony consisted of *ca* 70 pairs, the middle colony of *ca* 200 pairs and the large colony around the southern hill of 1100-1200 pairs. The last overlapped a colony of Short-tailed Shearwaters, who tended to burrow in patches of softer ground amidst the shale. Many wings and feet of the storm-petrels were littered about these colonies. The Southern Bushrat does not occur on Dorothee I., and the other noted predator of the White-faced Storm-Petrel, the Black Tiger Snake *Notechis scutatus* (Wood Jones 1937), was also apparently absent. We suspect that the predators were Pacific Gulls (see Littler 1910) and a pair of Barn Owls (see below).

We noted six solitary birds about midway between Dorothee and Greenly on 27.xi.1976, and three others feeding together over calm water in Coffin Bay *ca* 1 km east of Point Longnose on 1.xii.1976.

*Specimens*: B30465, Pearson I. (middle section), 24.xi.1976, adult female, oocytes slightly enlarged (? regressing); colours (10 mins after death, taken in artificial light); legs black, toes black except for light blue-grey borders where they met webs, webs cream with greyish-black stripe in centre of each; iris amber; bill black; mouth; palate dark grey, pharynx pinkish white; eyerim black; stomach contents (preserved) planktonic larvae of crabs. Bird shot 2230 hrs (after dark), possibly attracted by campfire.

B30466, Dorothee I., 26.xi.1976, adult female, oocytes very slightly enlarged (? regressing), oviduct dilated and convoluted; most of skull apparently one-layered but hard; colours (before death); legs and toes black, centres of webs cream; iris very dark brown; mouth flesh-grey; eyerim black; moderate subcutaneous fat. Bird caught 1120 hrs incubating egg (B30488, incubation 0.2) at end of burrow; colony of *ca* 70 burrows on east-facing slope of granitic rocks and shale, entrances difficult to find among low shrubs of *Threlkeldia diffusa*, *Atriplex palmata* and *Rhagodia crassifolia*.

B30467, Dorothee I., 26.xi.1976, adult male, testes very slightly enlarged (? regressing); skull fully pneumatized; colours (before death): as B30466; stomach contents one small stone; moderate subcutaneous fat. Bird caught 1135 hrs incubating egg (B30489, incubation 0.3) at end of burrow, same colony as B30466.

***Sula serrat*** (G. R. Gray), Australasian Gannet

Hornsby (1978) reported one seen regularly off Pearson I. in February 1974. We noted two off Pearson I. on 23 and 26.xi.1976, eight be-

tween Greenly I. and Coffin Bay Peninsula on 1.xii.1976, and single birds off Point Longnose and 2 km off Point Sir Isaac on 22.xi.1976.

***Phalacrocorax carbo*** (Linnaeus), Great (Black) Cormorant

Noted in small numbers on Pearson I. in 1923, 1960, 1969 and 1974. We observed up to five together on Pearson I., and small numbers on Dorothee, Big Veteran and Greenly.

***Phaeton rubricauda*** Boddaert, Red-tailed Tropic-bird

Cleland (1923) recorded two on the north section of Pearson I. There are only two other records from the Eyre Peninsula region: a female (SAM B2421) collected on Grantala Farm, North Shields, north of Port Lincoln, 13.i.1919 (Cleland 1923), and a bird shot on Flinders I. xii.1960 (Eckert 1970, Bedford 1972).

*P. rubricauda* is a rarely reported visitor to South Australia, records falling in the period December-May. This period is its breeding season in Western Australia (Serventy *et al.* 1971, Tarburton 1977). Eckert (1970) speculated that it may have bred undetected on islands off the South Australian coast.

***Ardea novaeollandiae*** Latham, White-faced Heron

Pearson I. Noted 1923, 1969, 1973 and 1974. We recorded one bird on the northern tip of the north section, on rocks among *Casuarina stricta*.

Dorothee I. We saw two single birds at opposite ends of the island, among boulders halfway up the slopes.

Greenly I. One noted by us, among *Casuarina stricta* on the ridge of the south section.

***Egretta sacra*** (Gmelin), Reef Heron

Recorded on Pearson I., 1920, 1923, 1973 and 1974. We observed one dark-phase individual on the south section, perched on a boulder halfway up the slope.

***Cereopsis novaeollandiae*** Latham, Cape Barren Goose

Pearson I. Noted on all previous visits. In 1976 we recorded two immatures and a dead adult on the north section, in low open *Melaleuca lanceolata*.

Dorothee I. Previously recorded by Paton (1971). We noted a party of nine adults on the southern coast.

Greenly I. Recorded by Finlayson (1948) and Mitchell & Behrndt (1949).

**Pandion haliaetus** (Linnaeus). Osprey

Recorded only by Hornsby (1978), who in February 1974 saw one flying along the eastern coastline of Pearson I.

**Haliaeetus leucogaster** (Gmelin). White-bellied Sea-Eagle

Pearson I. Cleland (1923) noted at least one on the north section, and found an old nest possibly of this species near the summit of the south section. Paton (1971) reported an unoccupied nest on the south section. Hornsby (1978) recorded two adults and a large immature, mainly on the north section, in 1973, and in 1974 two nests on the north section, one unoccupied but containing the skull of a Southern Bush Rat, the other attended by two adults. We noted two adults, mainly over the north section.

Dorothee I. Paton (1971) observed two birds over the island, and found an unoccupied nest on the peak on the southern part.

Greenly I. Finlayson (1948) reported a "Sea-eagle or Fish-Hawk . . . seen at a distance several times . . . could not be positively identified". He photographed a nest containing what he thought was a large fledgeling Osprey. We consider the photograph (cover of *S. Aust. Orn.* 18(8)) of insufficient quality for one to be able to say whether the bird is a young Osprey or an adult or subadult White-bellied Sea-Eagle. Finlayson also reported a feeding tree of a sea-eagle on the high ridge of the south section; beneath this were the remains of a Short-tailed Shearwater, a Galah, Tamar wallabies (*Macropus eugenii*) and a Barracouta (*Leionura utun*). He noted that the wallaby mortality on Greenly was considerable, and considered the White-bellied Sea-Eagle the most likely predator.

Mitchell & Behrndt (1949), under "White-headed Osprey", noted that a pair had taken up "permanent residence" on the island. They found two enormous nests near the summit of the south section and another on the north section. About the nest-sites, and beneath several large *Casuarina* trees, were the remains of numerous wallabies. The predator involved was again almost certainly the White-bellied

Sea-Eagle. We noted two adults on Greenly, usually over the high *Casuarina*-clad ridge of the south section.

**Falco cenchroides** Vigors & Horsfield.

Nankeen Kestrel

Pearson I. Recorded 1923, 1969, 1973 and 1974, from all three sections but no more than two birds each time. We noted a pair with flying young on North Hill (north section), and located a second pair, possibly nesting, on South Hill (south section), from an inaccessible stick nest on the south face of which came the sounds of cheeping. A single bird was also seen hunting over the plain of *Disphyma clavellatum* and *Atriplex paludosa* on the eastern side of the north section.

Dorothee I. Two noted by Paton (1971). We observed two single birds at opposite ends of the island.

Greenly I. Mitchell & Behrndt (1949) reported a single bird preying on the abundant skink *Egernia multiscutata*. We noted one bird over the dense *Melaleuca lanceolata* thickets on the steep southern slope of the south section.

**Haematopus fuliginosus** Gould. Sooty Oystercatcher

Pearson I. Recorded on all previous visits except 1920. We noted at least eight pairs on the rocky flats and shorelines. One pair on the middle section had a large flightless young one that hid in low *Atriplex*; the parents were vociferous, and one gave the broken-wing display. All adults were in pairs save for the party of seven that flew over the middle section early on 25.xi.1976.

Big Veteran. A pair seen from the boat.

Dorothee I. Paton (1971) recorded three adults and a flightless young. We noted five lots of three, three, three, five and one adults, but saw no signs of breeding.

Greenly I. Finlayson (1948) recorded a pair at the landing in Tapley Bay in November 1947. The following month, Mitchell & Behrndt (1949) noted many in the same bay. We saw a pair on the north section, but none on the south section.

**Vanellus novaehollandiae** Stephens. Spur-winged Plover

Pearson I. Cleland (1923) noted three in January 1923. Hornsby (1978) recorded three in February 1973 and two in February 1974.



We recorded two over the sea to the east of the middle section, and one over the sea off the southern coast of the south section.

Dorothee I. We made two sightings, of two and four birds.

**Charadrius rubricollis** Gmelin. Hooded Dotterel

Recorded only by Hornsby (1978), who in February 1973 saw two feeding among the intertidal rocks of the isthmus between the north and middle sections of Pearson I.

**Arenaria interpres** (Linnaeus). Turnstone

Pearson I. Paton (1971) noted eight on the north section. Hornsby (1978) recorded the species in 1973 and 1974, including a flock of 40 in 1974. We noted a flock of 19 on the rocky eastern shore of the middle section.

Big Veteran. Four seen from the boat.

Dorothee I. We noted four on the southern end.

Greenly I. We noted two in the channel between the two sections.

**Calidris ruficollis** (Pallas). Red-necked Stint  
**C. alba** (Pallas). Sanderling

Pearson I. In January 1960 Thomas and Edmonds recorded individuals of either *C. ruficollis* or *C. alba* (Paton 1971). Hornsby (1978) made similarly indeterminate sightings in February 1973 and February 1974. We noted four *C. ruficollis* on the landing beach on the eastern side of the middle section.

**Stereorarius parasiticus** (Linnaeus). Arctic Jaeger

This is the most frequent small skua in South Australian waters, occurring as a non-breeding, mainly summer, visitor. We saw single birds 15 km northwest of Point Longnose on 22.xi.1976, and midway between Dorothee and Greenly on 27.xi.1976. The two pairs of small skuas noted by Finlayson (1948) on Greenly in November 1947 may well have been of this species.

**Larus novaehollandiae** Stephens. Silver Gull

Pearson I. Noted on all previous visits except 1914.

Dorothee I. Recorded by Paton (1971).

Greenly I. Recorded as not plentiful in November 1947 by Finlayson (1948), and in the following month as visiting the island in big flocks and roosting on Seal Rock by Mitchell & Behrndt (1949).

We noted the species on all three islands and on Big Veteran, singly and in groups of up to 12, frequenting the coasts.

**Larus pacificus** Latham. Pacific Gull

Pearson I. Noted on all previous visits. We recorded eight pairs of adults and five subadults, mainly inland and on the sandy beach of the middle section. One pair kept flying over a large flightless chick that skulked in low shrubs and crevices in a flat rocky area of the middle section. Wood Jones found a nest with two eggs on 25.xi.1920 (Cleland 1923).

Dorothee I. Two adults recorded by Paton (1971). We noted three pairs (one with a large flightless chick) and three subadults.

Big Veteran. We saw one pair from the boat.

Greenly I. Recorded by Finlayson (1948) and Mitchell & Behrndt (1949). The latter authors reported the species as numerous, and found a nest on the north section containing two well-developed young. We recorded one pair of adults and a subadult near the channel between the two sections.

*Specimens:* B30468, Pearson I. (middle section), 22.xi.1976, subadult female, oocytes not enlarged, oviduct not convoluted; skull fully pneumatized; colours (10 mins after death): legs and feet pale yellow faintly tinged greenish, claws black; iris cream, heavily tinged dusky; bill waxy yellow, tinged greenish, tips of mandibles orange-scarlet with black along distal sections of tomia and black smudges elsewhere in the scarlet field; mouth: palate pale yellowish buff, tongue pale fleshy orange, rest light greenish yellow; eyerim ochraceous yellow; stomach contents a few chiton fragments. Collected 1645 hrs among boulders on coast; one of four birds, two adults and one other subadult. Plumage adult except for wings and tail.

B30469, Pearson I. (middle section), 22.xi.1976, adult female, four oocytes slightly enlarged (? regressing), oviduct convoluted; skull fully pneumatized; colours (5 mins after death): legs and feet dull lemon, with pale grey in creases and on webs, claws black; iris cream; bill dull waxy yellow tinged green, tips orange-scarlet with distal tomia black; mouth: pharynx orange-pink, tongue orange, rest dull yellow; stomach contents: three chitons. Collected 1620 hrs, flying over sandy bay backed by large smooth boulders.

B30470, Dorothee I., 26.xi.1976, adult (skeletonized, not sexed), skull fully pneumatized; colours (10 mins after death): legs and feet yellow-grey, claws black; iris white; bill rich yellow, tips red with distal tomia black; mouth: palate yellow, gape and tongue orange; eyerim orange-yellow. Collected 1935 hrs on rocky slope; with another adult and two immatures, and attending one large flightless juvenile.

B30471, Greenly I. (north section), 28.xi.1976, adult male, testes somewhat enlarged (? regressing), skull fully pneumatized; colours (immediately after death): legs and feet bright yellow, claws black; iris white; bill rich yellow, tips red, distal tomia black; mouth: palate yellow, gape and tongue orange; eyerim orange. Collected 1850 hrs, flying over rocks.

**Food.** The two stomachs examined contained only the remains of chitons. Stirling *et al.* (1970) reported many chiton shells in regurgitated pellets at a nest on the South Neptunes. Other items of food recorded for South Australian populations include turbos (molluscs) and various sea-urchins, both dropped from a height and smashed (Condon 1938, Cotton 1960), the gastropods *Subnirina undulata*, *Ninella torquata* and *Euninella gruneri* (Cotton 1960), rock crabs (Cleland 1923), parrot-fish pirated from fishing lines (Mitchell & Behrnt 1949), placentas and vomit of the Fur Seal *Arctocephalus forsteri* and seeds of *Nitraria schoberi* (Stirling *et al.* 1970) and immatures and adults of the White-faced Storm-Petrel (Wood Jones 1937; see also Littler 1910). (For comments on the dropping behaviour of this gull, see Farr 1978.)

**Taxonomy.** Our specimens are referable to the western subspecies *L.p. georgii* Vigors, which breeds eastwards to Kangaroo Island and which differs from the nominate subspecies of Tasmania in having a blackish patch along the distal tomia of both mandibles in the adult (Van Tets in Prith 1977).

#### *Sterna nereis* (Gould), Fairy Tern

Pearson I. Paton (1971) recorded two fishing off the eastern bay of the north section. In February 1974 Hornsby (1978) found two colonies of about 30 birds each on the limestone plateau of the south section, nesting amidst the low *Atriplex*. The nests contained eggs and newly-hatched young. We noted up to five birds fishing in the calmer waters of the three bays west and east of the middle section.

Greenly I. We recorded ca 100 on Seal Rock. Many were sitting, possibly on eggs. Individuals from this colony were seen to fly westwards along the coast of the south section to fish near the channel, then return to Seal Rock.

**Specimens:** B30472, Pearson I. (middle section), 24.xi.1976, adult male in breeding dress, testes

much enlarged, skull fully pneumatized; colours (5 mins after death): legs and feet orange yellow; iris very dark brown; bill bright yellow, tip blackish, extreme tip whitish; mouth flesh grey; eyerim black. Collected 0820 hrs over sea near beach; with three others.

B30473, Greenly I. (south section), 29.xi.1976, adult male in breeding dress, testes much enlarged, skull fully pneumatized; colours (shortly after death): legs and feet orange yellow, claws black; iris very dark brown; bill rich yellow, tip of upper mandible blackish; mouth: pharynx pale purplish-pink, palate creamy pink, inner bill and gape dull yellow; eyerim black; stomach empty. Collected 0925 hrs, diving along rocky coast.

#### *Sterna bergii* Lichtenstein, Crested Tern

Pearson I. Recorded on all previous visits except 1914. We noted a flock of 210 sitting on rocks near the landing on the middle section, and one and four birds off the south and middle sections respectively.

Dorothee I. Paton (1971) recorded ca 100 resting on the rocks at the southern end. We saw two single birds flying offshore.

Greenly I. Mitchell & Behrnt (1949) recorded several small flocks about Tapley Bay. We noted a flock of 127 on the north section, just south of Wandra Point, behaving as though about to breed—grouped mainly in pairs and behaving aggressively.

#### *Cacatua roseicapilla* Vieillot, Galah

Pearson I. Hornsby (1978) recorded this species twice in February 1973—a pair, and later a large flock, flying from Pearson I. towards Dorothee.

Greenly I. Finlayson (1948) found the remains of a Galah beneath the feeding tree of a White-bellied Sea-Eagle on the south section.

Other offshore islands on which this species has been recorded (mainly since the 1930s) are Kangaroo, Wardang, Tronbridge, Althorpe, South Neptunes, Reevesby and Flinders. On Althorpe I. it has been reported nesting in the cliffs, and may also do so on Kangaroo I. and Flinders I.<sup>1</sup>

#### *Neophema petrophila* (Gould), Rock Parrot

Pearson I. Recorded on all previous visits. We noted at least 16 on the south section, five on the middle section and seven on the north section. Two specimens collected on the south

<sup>1</sup> Parker, S. A., Eckert, H. J., Ragless, G. B., Cox, J. B. & Reid, N. C. H. (in prep.). An Annotated Checklist of the Birds of South Australia.

section, 23.xi.1976 (see below), were judged by B. Hutchins and F. Lewitzka (pers. comm.) to be ten weeks old *i.e.* to have fledged three weeks previously. The species was recorded in all habitats, including bare flat granite rocks, low *Atriplex* and the *Casuarina* woodland on the north section. We noted the call as a high double-whistle, repeated.

Big Veteran. We observed four from the boat.

Dorothee I. A few recorded by Paton (1971). We counted 33-35 birds, including a flock of 20 moving restlessly through *Atriplex* shrubs among boulders on a steep slope.

Greenly I. Mitchell & Behndt (1949) recorded several flocks arriving and others departing in a direct line to the mainland in December 1947. None was recorded by Finlayson (1948) the previous month, nor did we encounter it. Mitchell & Behndt suggested that they migrated to the island to feed on pig-face (*Aizoaceae*) seeds.

In South Australia the Rock Parrot breeds on several islands off Eyre Peninsula east to the Sir Joseph Banks Group, and on an island in Pandalowie Bay, southern Yorke Peninsula. In the non-breeding season it disperses to the opposite mainland, to other islands (including Kangaroo I.) and eastwards and southwards along the coast at least as far as the Baudin Rocks near Robe<sup>1</sup>. It is noteworthy that there are no breeding records of this parrot from Pearson, Dorothee or Greenly; this may be due to the paucity of observations during the breeding season (eggs late Aug.-early Nov.), or to the absence or near-absence of suitable nesting-sites on these islands (crumbling, fissured limestone faces draped with succulents).

*Specimens:* B30474, Pearson I. (south section), 23.xi.1976, immature male about 10 weeks old, testes not enlarged, skull fully pneumatized; colours (5 mins after death): legs pale buffy grey, toes greyer, claws black; iris very dark brown; upper mandible and cere mainly dull grey, with nostrils, proximal tomlia and distal culmen orange buff; lower mandible orange buff; mouth pale orange-yellow tinged grey; eyerim dark grey; crop contents (preserved): seeds. Collected 1100 hrs among large granite boulders above small bay; with one other bird.

B30475, locality-skull data as B30474; colours (immediately after death): legs and feet creamy grey; iris very dark brown; upper mandible olive-brown, tomlia yellow; lower mandible yellow; cere greyish yellow; mouth pinkish yellow; eyerim

blackish; crop contents (preserved): seeds. Collected 1105 hrs among large granite boulders on coast; with one other.

*Food:* The crop of B30474 contained chiefly the seeds of *Lepidium foliosum*, *Correa reflexa* and a species of *Atriplex*; a minute reddish seed of an *Aizoaceae* species (either a *Carpobrotus* sp. or *Disphyma clavellatum*) was also present, in a small quantity. The crop of B30475 contained only the seeds of a *Rhagodia* sp. (L. Williams in litt. 5.vii.1977).

#### *Melopsittacus undulatus* (Shaw). Budgerygah

Recorded only by Paton (1971), who saw two on the north section of Pearson I.

#### *Chrysococcyx basalis* (Horsfield). Horsfield's Bronze Cuckoo

At least two seen by Cleland (1923) on Pearson I.

#### *Tyto alba* (Scopoli). Barn Owl

Pearson I. Under Owl, Cleland (1923) wrote: "A large bird seen once at night and pellets found near the northern summit, suggest the presence of an Owl." Hornsby (1978) reported a Barn Owl in the upper part of Main Creek, north section, in February 1973 and February 1974.

Dorothee I. On 26.xi.1976 we flushed two Barn Owls from a crevice among large boulders near the top of the cleft running across the waist of the island. In the crevice were feathers of the White-faced Storm-Petrel (*q.v.*).

In South Australia the Barn Owl is known mainly from the eastern part of the State, with records also from the Nullarbor Plain and Eyre Peninsula. Apart from those mentioned above, it has been recorded on the following islands, presumably mainly as a vagrant during irruptions: Kangaroo, Goose, Wardang, Thistle, Waldegrave, Franklin (Parker 1977).

#### *Apus pacificus* (Latham). Fork-tailed Swift

Paton (1971) recorded at least 20 hawking over the northern peak of Dorothee on 11.i.1969.

#### *Hirundo neoxena* Gould. Welcome Swallow

Pearson I. Recorded on all visits except 1914 and 1920. We saw it frequently on all sections, in ones, twos, threes and fours, and once in a flock of ca 30 above *Casuarina stricta* woodland on the sheltered northeastern slope of 781 Hill on the north section.



Dorothee I. Noted by Paton (1971) as probably the most common species on Dorothee and Pearson next to the Silvereye *Zosterops lateralis*. We saw a pair at the northern tip and a single bird on the southern coast.

Greenly I. Recorded by Finlayson (1948) and Mitchell & Behrndt (1949). We noted at least six on the north section and saw the species frequently in ones and twos all over the south section, from the *Casuarina*-clad ridge to the sea-cliffs.

*Nesting*: At the north base of South Hill, Pearson I., we found an old nest in a crevice, made entirely of mud. Mitchell & Behrndt found nests on Greenly and remarked on "the far greater use of sheoak needles and other organic matter in the nests of these birds on an island where good binding earth is absent". Eckert (1971) reported nests from Franklin I. made mostly of fibrous material with no mud apparent.

***Anthus novaeseelandiae*** (Gmelin), Richard's Pipit

In February 1974 one was regularly seen on the limestone plateau of the south section of Pearson I. (Hornsby 1978). The species is common on Flinders I. (Eckert 1970).

***Sericornis frontalis*** (Vigors & Horsfield).

White-browed (Spotted) Scrubwren

On 16.ii.1974 P. Martinsen tentatively identified a scrubwren of this group in thickets on the upper slopes of the north section of Pearson I. (Hornsby 1978). There are no other records from Pearson I., though the species is common on Flinders I. (Eckert 1970).

***Megahurus gramineus*** (Gould), Little Grassbird

We encountered this species only on the north section of Greenly, where it was fairly common on the shrub-clad slopes. Its (apparent) absence from the south section of Greenly may be attributable to grazing by the Tammar Wallaby, which is not present on the north section.

In South Australia this species occurs mainly in the eastern part, including Eyre Peninsula. Although its occurrence on offshore islands has not been appreciated, it has been recorded from several: Waldegrave, Williams, Hopkins, Reevesby, island in Pandalowie Bay, Troubridge, Kangaroo, Busby, Beatrice and Baudin Rocks<sup>1</sup> (see also Whinray (1976) for notes on its occurrence in the Furneaux Group, Bass Strait).

*Specimen*: B30476, Greenly I. (north section), 28.xi.1976, adult male, testes slightly enlarged, skull fully pneumatized; colours (immediately after death): legs and feet flesh-grey, soles creamy; iris brown, upper mandible with blackish culmen and pale cream tomtia; lower mandible creamy grey at base, dark grey at tip; mouth creamy flesh; eyerim grey; stomach contents elytra of small black beetles and other chitinous fragments. Collected 1805 hrs in low shrubs on rocky hillside.

*Taxonomy*: Keast (1956) recognized two mainland subspecies of *M. gramineus*: the southwestern *M.g. thomasi* Mathews and the eastern and southeastern *M.g. goulburni* Mathews, the former distinguished in being darker above and having generally heavier ventral striations than the latter. The specimen from Greenly is fairly dark above, but matches specimens of *M.g. goulburni* in the lightness of its ventral streaking.

***Petroica goodenovi*** (Vigors & Horsfield).

Red-capped Robin

Pearson I. Recorded all visits except 1914. We found the species common in *Casuarina stricta* woodland and in the area of burnt *Melaleuca lanceolata*-*M. halmaturorum* on the north section. Several pairs were attending well-fledged young.

Dorothee I. In the absence of *Casuarina* and *Melaleuca* it presumably does not occur.

Greenly I. Noted by Finlayson (1948) and Mitchell & Behrndt (1949) in *Casuarina stricta* and *Melaleuca lanceolata* on the main ridge. The latter authors found a nest with young. We noted numerous individuals in the above habitat, including several pairs feeding fledglings.

*Specimens*: (all collected 0945-1545 hrs, 24.xi.1976, north section, Pearson I.). B30477, imm. female, solitary; gonads undeveloped, skull fully pneumatized. B30478, adult male, solitary; testes enlarged (? regressing), skull fully pneumatized. B30479, adult male, solitary; testes small, skull fully pneumatized. B30480, adult male, solitary; testes enlarged (? regressing), skull fully pneumatized; B30481, imm. male, with adult male-phase bird, calling a high *seep seep seep*; testes minute, dome of skull largely unpneumatized. B39482, adult male, with adult female-phase bird; testes enlarged; skull fully pneumatized. B30483, adult female, with adult male-phase bird; oocytes regressed, oviduct dilated and convoluted, large broodpatch on abdomen; skull fully pneumatized; possibly the mother of B30481.

*Colours of unfeathered parts* (within 10 min of death):

Adult males: legs and feet blackish, soles dull buffy yellow, buffy yellow or yellow-grey; iris very dark brown; upper mandible blackish; lower mandible blackish, some with rami and basal tomia horn or dull yellow; gape buffy, dull yellow, dull buffy yellow or orange yellow; mouth rich yellow, dull orange yellow, orange yellow, or dull yellow; eyerim black, blackish or blackish brown.

Adult female: legs and feet blackish brown (soles not noted); iris damaged; bill blackish grey; gape yellow; mouth bright orange yellow; eyerim dark grey.

Imm. male: legs and feet greyish black, soles ochraceous buff; iris dark brown; bill blackish brown; gape buffy yellow; mouth deep bright yellow; eyerim blackish brown.

Imm. female: legs and toes black, soles buffy yellow; iris very dark brown; bill blackish brown; gape dull yellow; mouth orange yellow; eyerim blackish brown.

**Taxonomy:** Specimens collected on Pearson I. by us and by Cleland (1923) do not appear to differ morphologically from specimens of the mainland populations. In our opinion, however, the song of the Pearson I. population is distinctly different from that of mainland birds (song not heard on Greenly).

***Pachycephala pectoralis* (Latham), Golden Whistler**

Pearson I. only. Recorded on all visits except 1960 and 1973. Apparently confined to the north section, where we found it fairly numerous (and singing) in dense *Casuarina stricta* and *Melaleuca lanceolata* thickets.

**Specimens:** B30484, Pearson I. (north section), 24.xi.1976, adult female, oocytes not enlarged, skull fully pneumatized; colours (shortly after death): legs and feet pale grey; iris reddish; upper mandible black, lower mandible blackish; mouth creamy flesh; eyerim blackish. Collected ca 1500 hrs in *Casuarina stricta* and other scrub on rocky hillside; alone.

B30485, Pearson I. (north section), 24.xi.1976, adult male, testes enlarged, skull smashed by shot; colours (5 mins after death): legs and feet blackish, soles creamy; iris red; bill black; mouth creamy flesh; eyerim black. Collected ca 1500 hrs in *Casuarina stricta* and other scrub on rocky hillside; with another adult-male phase bird.

**Taxonomy:** The populations of Pearson I. and Flinders I. are referable to *P.p. fuliginosa* Vigors & Horsfield, of southern Western Australia, southern South Australia (except the lower South-East) and northwest Victoria. This subspecies is characterized mainly by females and uncoloured males having the underparts buffy cinnamon.<sup>1</sup>

***Zosterops lateralis* (Latham), Silvereye**

Pearson I. Recorded on all previous visits. The commonest passerine on the island, occurring in small flocks mainly on the north and south sections. We noted it in dense thickets of *Melaleuca*, and in the chenopods and other low dense shrubs on level ground and on the boulder-strewn slopes.

Dorothea I. Noted as common by Paton (1971). We recorded it in small numbers all over the island, among low windswept shrubs of the slopes and summits.

Greenly I. Mitchell & Behrndt (1949) reported it as common on the south section, favouring the stunted *Melaleuca lanceolata* on the precipitous slopes and ledges below 76 m. They noted several young birds incapable of sustained flight. We noted it as common from sealevel to the ridgetop, mainly in *Casuarina stricta* and *M. lanceolata*, with a flock of ca 30 in a clump of *Meuhlenbeckia adpressa*. It was also common on the north section in the dense low ungrazed shrubs on the steep slopes.

***Lichenostomus virescens* (Vieillot), Singing Honeyeater**

Recorded only by Paton (1971), who saw one bird on Pearson I. in January 1969.

***Phylidonyris novaehollandiae* (Latham), New Holland Honeyeater**

Mitchell & Behrndt (1949) recorded three "somewhat bedraggled" individuals on Greenly I., one of which they collected (SAM B23768).

***Epthianura albifrons* (Jardine & Selby), White-fronted Chat**

Pearson I. only. Cleland (1923) noted it as "one of the commonest birds on the islands" in January 1923. Recorded by Thomas & Edmonds, January 1960 (Paton 1971). Paton recorded a few small flocks, each of about six birds, feeding mainly in the saltbush, and banded an immature, whose conspicuous yellow gape suggested that the species had bred on the island. We saw only one, a bird in female plumage, on bare granite boulders on the south section; on being disturbed, it flew out over the eastern bay.

***Epthianura tricolor* Gould, Crimson Chat**

Five noted on the northern slope of the north section of Pearson I. on three consecutive days in January 1969 by Paton (1971).

Two small red-rumped birds seen flying out to sea from the north section of Greenly I. by us were almost certainly of this species.

***Passer domesticus* (Linnaeus), House Sparrow**

Cleland (1923) entered a "very doubtful" sighting of two or three birds on Pearson I. in January 1923. Paton (1971) recorded a flock of ca 40 on the eastern point of the north section of the island in January 1969, and a few on Dorothee I. We recorded a few on the north section of Pearson, and two on Dorothee. Possibly the species is a vagrant from Flinders I. (where it is very common) that has so far failed to establish itself.

***Sturnus vulgaris* Linnaeus, Starling**

Cleland (1923) recorded a small flock over Pearson I., but added, "This record cannot be considered as established beyond all doubt". Paton (1971) noted that the species was as numerous as the House Sparrow (on Pearson I.), observing 20-30 at one time, including many immatures. Hornsby (1978) noted one or two birds on the middle section in 1973 and 1974. We noted two parties on the south section of Pearson (one of 5-6, one of ca 30), and five lots on the north section (of 1, 10, 12, 2 and 3 birds). On Dorothee we recorded four lots of 10, 4, 2 and 2 birds.

***Artamus personatus* (Gould), Masked Woodswallow**

Noted on Pearson I. only. Cleland (1923) tentatively identified two pale bluish woodswallows as this species. Paton (1971) noted one bird only, and referred to others seen by Thomas and Edmonds in 1960. We saw a pair on the north section in an area of *Casuarina stricta* and burnt *Melaleuca*.

***Corvus coronoides* (Vigors & Horsfield)  
Australian Raven**

Pearson I. Waite noted "crows" on 27.ix.1914, and Wood Jones found corvids resting in *Casuarina* on 25.xi.1920 (Cleland 1923). Cleland noted "some 30 or 40", of which he collected two adults and a subadult (B4247-8, 28515); he also reported an unoccupied nest on the north section. Details of the stomach contents of Cleland's specimens, which included vegetable matter, insects and a

rat, were given by Cleland (1923) and Lea (1923).

Thomas and Edmonds noted corvids in January 1960 (Paton 1971). Paton recorded *C. coronoides* in January 1969, identifying the species by its call. She wrote "usually in pairs, though sometimes as many as six might be seen feeding together on wave-washed debris on the rocks. . . . An old nest, probably of this species, was seen in a *Casuarina*." Hornsby (1978) recorded the species in 1973 and 1974, on all three sections, the largest number observed being 14. The birds were seen to pick at crabs and small fish stranded by the tide, and on one occasion several were seen at a freshly-dead Little Penguin.

We recorded the species mainly among the high rocks of the north and south sections. We estimated a maximum of six birds, which ranged regularly the length of the island.

Dorothee I. Paton (1971) recorded four. We saw a party of three.

Greenly I. Finlayson (1948) noted under *Corvus* sp.: "Two birds seen and more often heard on the main ridge." The following month Mitchell & Behrndt (1949) noted seven corvids roosting regularly in two large *Casuarina* trees just below the summit of the south section; these trees contained several nests, only one of which appeared to have had recent use. We noted a maximum of five *C. coronoides* (identified by their wailing call), along the *Casuarina*-clad main ridge.

The occurrence of the Australian Raven on South Australian offshore islands has not been fully appreciated. It has been collected or reliably recorded on St Francis, Franklin Is., Flinders, Pearson, Dorothee, Waldegrave, Greenly, Thistle, Hopkins and Kangaroo I., and is probably the corvid involved in sightings on Spilsby, Wedge, and the South Neptunes. The only island from which the Little Raven *C. mellori* has reliably been recorded is Kangaroo I.<sup>1</sup>

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